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ABSTRACT

Children whose temperamental traits are significantly different from the average risk abuse or neglect from parents who do not recognize this "differentness" as legitimate expressions of individuality. This paper discusses how parents can learn to cope with "difficult" or temperamental infants, by explaining the work of the Indiana University South Bend (IUSB) Parent Project, an ongoing project designed to discover the most effective ways to educate parents about individual differences, specifically differences in temperament. Because a key dimension underlying a parent's perception of the child is that of demand (how much--or little--time, energy, and worry does this child demand?) a model of temperament was developed based on that demand. The "challenging" children are those on the extremes of the demand model--those called "easy" and those labelled "difficult. The Parent Project has followed 18 two-parent families since the birth of their first child, with trained parent educators visiting each family monthly to provide information on child development and observing the child's current development. When a child is rated by parents as extreme on a temperamental scale, parent educators respond by giving the parents a temperament information sheet. Families will participate in the study until the child is 3 years old, at which time the child will be evaluated in terms of social and cognitive development. Parents' satisfaction and confidence in their parenting role will also be assessed, and the children's performance will be compared to a control group. It is hypothesized that the children in this study will outperform the control group in both social and cognitive development. Three case studies are also reported which provide examples of "sensitive," "active," and "easy-going" temperaments. An appendix provides a list of temperament traits. (MDM)

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A preliminary report on the IUSB Parent Project: Infant temperament and bidirectional influence in the family

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Most parents and teachers generally know what to expect from the average newborn, three-year-old, or teenager. However, most people experienced with children also know that not all children are the same--that in every group of children, there will probably be several who "march to a different drummer." These children do things in their own way, don't respond to the usual methods in the usual ways, and provide the adults dealing with them with a real challenge. These are not necessarily children who have had traumas, unusual family situations, or specific learning disabilities or emotional disturbances. They are just children who are normal but not average. Working with these children can be frustrating. Tried and true procedures and methods are ineffective or backfire, and sometimes parents feel angry or incompetent when dealing with these children.

Parent education programs

A number of programs have been developed to remedy this situation, teaching basic information on child development and behavior management (Zigler & Black, 1989). Perhaps the best of these programs is Missouri's Parents As Teachers (PAT) program, in which trained educators visit parents once a month in the home providing timely information about child development (White, 1988). There are several aspects of PAT that make it particularly effective. First, the program focuses on the first three years of a child's life, a crucial time of development for children. Burton White, designer of the Missouri program, states that children already show the effects of optimal or suboptimal parenting by that time (1985). The first three years is also the time when lifetime patterns of parenting are set, so changes made than are likely to endure. Second, parents are visited monthly in the home, making participation very convenient, especially for families with no transportation. Home visits also give parent educators a chance to view the home situation in a nonthreatening manner. Third, the emphasis is on teaching the parents how to parent.

Programs that focus on teaching children send a child back to the same poor environment. By changing the parents, PAT changes the child's entire environment. Fourth, the Missouri program is open to all parents, thus avoiding problems in identifying and labelling "at risk" families. Parents are more likely to participate in programs that do not force them to stigmatize themselves. Further, a key tenet of primary prevention is that we do not yet have good predictors for risk, and by targeting "at risk" populations for interventions, we may miss a number of families who would benefit from the programs (Forehand, Walley, & Furey, 1984).

The PAT program has shown demonstrable effects on children's cognitive and social development (Pfannenstiel and Seltzer, 1985). When compared to a matched group of three year olds, the PAT children performed better on several measures of cognitive, social, and language ability. These children are currently beginning elementary school, and new data is being collected to test the long-term consequences of PAT participation.

The PAT program is excellent, but its materials are geared to the average child. While this may be efficient (most children are average), it can cause problems for the parents of children who are not average. Not only is the information not as helpful to them, but receiving information about the average child may make them even more concerned about their own child's ability. The individual home visits of the PAT program offer an ideal opportunity to tailor lessons and information for each individual child and family.

One factor that puts children at significant risk for abuse or neglect is their individual temperament (Martin, 1976). Children whose temperamental traits are significantly different from the average risk abuse or neglect from parents who do not recognize their "differentness" as legitimate expressions of individuality. Even chidlren not at risk for abuse or neglect may be at risk for less than optimal parenting.

My goal in the IUSB Parent Project is to discover the most effective way to educate parents about individual differences, specifically differences in temperament. In my attempts to make the information about temperament conceptually clear and useful, I have developed a new conceptual model of temperament in the family context. In this paper, I will briefly review the information about temperament and how it

operates in the family context. I will then present the model and explain how it is used with families. Finally, I will present several case studies from our sample which illustrate the model.

Temperament

Bates (1989) states that temperament "consists of biologically rooted individual differences in behavior tendencies that are present early in life and are relatively stable across various kinds of situations and over the course of time (p. 4)." Temperament seems to be present at birth or soon afterwards and becomes somewhat stable by three or four months (Emde, Gaensbauer, & Harmon, 1976), and there is growing evidence that its origins are largely genetic in nature (Buss & Plomin, 1984). While a child's temperament may be stable over time, interactions with the family and schools can have an enormous impact on how the child learns to handle these predispositions.

Current thinking about temperament is largely influenced by the work of Thomas and Chess (1977), clinical psychologists who were concerned with the impact of temperament on a child's long-term development. Their New York Longitudinal Study followed 141 children from early infancy into childhood and continued with periodic follow-ups. They identified nine temperamental traits that seemed important in children's interactions; certain patterns of these traits seemed to make children at risk for various psychological and behavioral problems.

Temperament is typically broken down into a number of traits; however there has been considerable disagreement among the major researchers as to what and how many these traits are(Goldsmith, et. al., 1987). Among the clinicians, Thomas and Chess (1977) describe nine temperamental traits--activity, regularity, approach or withdrawal to newness, adaptability, emotional intensity, mood, persistence, distractibility, and sensory threshold. Carey also uses those nine (1989). Turecki(1989) uses all but one, combining persistence and adaptability. At the other extreme, Buss and Plomin (1984), who focus on the heritability of temperament, use only three traits-- emotionality, activity, and sociability. Most of the applied research focusing on temperament in the family and in the schools uses some version of the Thomas and Chess traits, which is why I will be using those nine. (Refer to Appendix A for a list and definitions of these traits.)

The difficult child

Much of the clinical work on temperament has focused on identifying patterns of temperamental traits that make a child at risk for future problems. As mentioned in the introduction, most of our experience, knowledge, and advice are based on the behavior of the average child. A child whose temperament deviates significantly from average might be at risk for various problems. Thomas and Chess (1977) described three patterns of temperamental traits. While most children were average on most of these traits, there were a number who were more extreme. These children's traits fell into three clusters: "difficult," "slow to warm," and "easy." The difficult child is emotionally intense with a predominantly negative mood, withdraws from new things and adapts slowly to change, and has irregular body rhythms. The "slow to warm" child shows a milder version of this pattern. The "easy" child is the other extreme, with a predominantly positive mood, positive approach and great adaptability, a low-key emotional response, and very regular body rhythms. Thomas and Chess suggest that the "difficult" child is at considerable risk for emotional and behavioral problems. A "difficult" temperament has been linked to child abuse, behavioral problems, emotional problems,and accident-proneness, (Matheney; 1986, 1987) among other problems.

Turecki (1989), who directs two clinics for "difficult" children, subdivided the children referred to the clinics into two groups based on ratings of their traits. One group, the very active/very distractible group, had poor adaptability, high intensity, high irregularity, and a low sensory threshold. They tended to have positive mood and to approach new things. Most of them were boys. These children present a picture commonly described as "hyperactive." While not all active/distractible children are clinically hyperactive, it is likely that all hyperactive children are difficult. Turecki's second group was labeled low active/nondistractible and was characterized by extremely low adaptability, extremely negative mood, withdrawal to new things, high intensity, low sensory threshold, and irregularity. This group was two-thirds female. While both groups are certainly subsumed under the category "difficult," they present a very different experience to parents. The active/distractible child is perceived as a whirlwind of trouble, always into something. Parents are constantly struggling to keep on top of things, before trouble erupts. The low active/low distractible child is perceived as complaining and clinging, constantly demanding attention.

Numerous other studies (e.g. Cameron, 1977) have focused on the "difficult child" in attempts to determine the extent of the risk factor and other variables that might be influential. The evidence at this point is not conclusive, but there seems to be consensus that these children are often at risk for future problems. The most frequently cited intervening factor is "goodness of fit" or how well the child fits into the expectations and interactions of a particular context (family, classroom, etc.) (Thomas & Chess, 1977). A child whose temperament puts him or her at odds with others is likely to develop behavior problems, low self-esteem, and emotional problems.

The "easy" child

At the other extreme from the difficult child is the easy child. This child, described by Thomas and Chess (1977), Turecki (1989), and others as pleasant, regular, adaptable, approaching new things, and low-key in emotion, has been given little theoretical or research attention. This child is assumed to be at low risk for problems and a delight for parents. This may indeed be the case, at least in low-risk families. However, there is some evidence that the easy child may also be at risk. Studies by deVries (1984, 1989) of African infants, found that the difficult babies survived drought conditions while the easy ones did not. It was suggested that the easy babies did not cry as much and were not given the scarce food. The complaining difficult babies were fed. If there is truth in the folk saying that "the squeaky wheel gets the grease," then difficult children may be more likely than others to get their share of needed resources.

I suggest that the easy child is at risk for neglect, both physical and emotional. Because the easy child has a high sensory threshold, hunger and pain may not be noticed by the child. A low emotional intensity and predominantly positive mood make it less likely that the child will communicate problems to the parent. Adaptability and approach to new things mean that the child will be frequently expected to change to meet others' needs and expectations, rather than vice versa. Put all these things together and you have a child who would rarely complain about neglect.

Mild neglect can even occur in low risk families. Parents expect infants and children to give them some feedback about their parenting practices. They are told to feed the baby on demand because the baby will cry

when it is hungry. But what about the easy baby who does not feel mild hunger pains? They are told to encourage the child to play independently. But what about the easy child who would play all day alone in the bedroom? Well-meaning parents may not give the easy child the attention and care needed because they are counting on the child's cues to guide them. This method of parenting, which works admirably for the average child, can lead to neglect of the easy child.

IUSB Parent Project terms

When working with families participating in the IUSB Parent Project, I try to use terms that are not so value-laden as "difficult" and "easy". If a child is labeled "difficult" a self-fulfilling prophecy may be set into effect. A parent who is having trouble with an "easy" child might feel especially inept. I have found several terms that seem to describe the general flavor of each pattern of temperament while acknowledging the strengths and potential problems of the child's behavior.

Overall, I describe the children at the extremes of temperament (both easy and difficult) as "challenging" because these children are more of a challenge to parent competently than the average child. The assumption is that the challenge can be met, but that competent parenting might take a little more thought and work than with the average child. In addition, we stress to parents that extreme behavior traits are not necessarily good or bad--that context and the goodness-of-fit are crucial factors in how a particular trait will be experienced. For example, the child who is very active may be more difficult to parent, especially if the family is non-active or living in small quarters. However most people would agree that the adult who has a great deal of energy is greatly admired. As another example, children with acute sensitivity to taste can be very difficult to deal with at mealtime. (Foods frequently don't taste "right".) In adulthood, this sensitivity could lead to a career as a great chef. From the "easy" end of the continuum, the child who approaches new situations without fear may explore enthusiastically--but may also be foolhardy, taking dangerous risks. Overall, we stress to parents that the challenging child, if encouraged to capitalize on their strengths and compensate for their weaknesses, can develop into a remarkable adult. Of course, this is advice that would apply to any child, but it is particularly appropriate for the challenging child.

The child with easy temperament is described as "easy-going," a term that reflects his or her generally positive mood, low-key emotions, and adaptability, but does not imply that parents need not worry about the child.

The difficult children are subdivided into Turecki's (1989) two categories. The active/distractible are described as "energetic" to focus attention on the positive aspects of such a temperament. The low active/nondistractible children are described as "sensitive," a term that puts their negative mood and withdrawal into a more positive light.

The Demand Model of the Challenging Child

When examining temperament in the bidirectional context of the family, one key dimension that underlies the parent's experience and perception of the child is that of demand--how much time, energy, and worry does this child demand? In general, the younger the child, the more the demand on the parents. Infants require a great deal of time, energy, and worry, but the demands slowly abate as the child grows older. However, individual children at each age vary greatly in the demands they place on parents.

Temperament is one factor that can strongly affect the demands a child places on parents. I have developed a model of temperament based on that demand (see Figure 1). The bar across the top represents the amount of demand that a child places on the parents with the least demand on the left and the most demand on the right. The middle represents the average amount of demand that a parent might expect from a child of a particular age. The easy-going child is in the nondemanding end, while the energetic and sensitive child go in the demanding end. Underneath the average section of the bar there is a listing of the nine temperamental traits and the average demand child is expected to have average ratings on most of these traits. Underneath each of the three challenging types I have added the rating that a child of that type would receive on each trait. For example, the easy-going child is very adaptable but the energetic or sensitive child is not. Children on both ends of the bar (in the white areas) are considered challenging children, because parents cannot use the usual methods to deal with them.

THE CHALLENGING CHILD

Model of Demand

Nondemanding: "Easy-going"	Average: Near the average on most or all traits	Demanding: "Energetic" "Sensitive"

(Average rating of traits)

good	Adaptability	poor	poor
low	Intensity	high	high
regular	Regularity	irregular	irregular
low	Persistence	high	high
not sensitive	Sensory Threshold	very sensitive	very sensitive
low	Activity level	high	low
low	Distractibility	high	low
approach	Approach/Withdrawal	approach	withdraw
positive	Mood	positive	negative

Most parents assume that a child is average in demand-- that the child will ask for attention/assistance when needed, and will not ask when it is not needed. Indeed, the whole concept of demand feeding for infants assumes that infants will demand food when hungry and not demand it when sated. The problem is that children with extreme temperaments do not operate this way. For example, a child with very intense emotions, negative mood, and a high sensitivity to pain may cry intensely over a stomach ache. This reaction is a true reflection of the child's feelings at that moment, not an attempt to manipulate parents. The adult acting on the demand characteristics of the average child might think that this child is seriously ill and rush to the hospital. Upon learning the nonserious nature of the ailment, this adult might become angry with the child for "crying over nothing" and accuse the child of malingering. On the other hand, a child who has low emotional intensity, low sensitivity to pain, and a generally positive mood might complain very mildly about a serious stomach ache. Again, the parent, operating on the assumption of average demand characteristics, will misunderstand the situation and, in this case, not get the medical attention the child needs.

A child who demands a great deal from parents will be seen as difficult to parent, while the child who makes very few demands is seen as easy to parent (See Figure 1). Bates (1989) describes social demandingness as one connotation of parent ratings of infant negative affect. A "difficult" child makes constant demands. A colicky infant, who cries frequently and inconsolably, demands almost constant attention from a parent. (Colic has been linked to an underlying difficult temperament by Taubman, 1990.) A very active/distractible child is into everything. A parent must be constantly supervising such a child to prevent accidents and destruction. The nonactive/nondistractible difficult child doesn't particularly need supervision, but fears and negative mood require frequent attention from parents. A parent with a child from the high end of the demand continuum will probably feel overburdened by the constant demands of their child.

At the other end of the demand continuum is the "easy" child. An "easy" baby is commonly understood to be one who sleeps frequently and regularly, is on a schedule, and cries only when extremely upset. These babies are also often described as "good", a term even more value-laden. When older, an "easy" child is one who entertains themselves, doesn't upset easily, and is easily distracted from undesirable pursuits. An "easy" child doesn't make many demands on parents and is assumed to be developing well without much

parental input. Parents of children at the low end of the demand scale will feel much less burdened by their children, but they may be troubled by the feeling that their child doesn't really need them.

In most families, children with extreme temperaments will encounter occasional problems when parents forget to take their temperaments into account when dealing with them. While these incidents are not optimal, they probably do not constitute a high risk situation. However, in some families, a child's extreme temperament may be a major contributing factor to more serious risk. In general, the more stress in a family, the less likely the parent would have the time and energy to deal with the challenging child. In those situations, the high demands of the sensitive and active child may be the extra stress that provokes extreme discipline or emotional and physical abuse. Under these high stress conditions, the low demands of the easy-going child may allow the parent to neglect the child.

Bidirectional Influence

"Goodness-of-fit" is the term used to describe the effects of the particular mix of child temperament and context (Thomas & Chess, 1977). "Goodness-of-fit" could also be used to refer to the outcome of bidirectional influence between child and environment (Parents, teachers, siblings, others). The model of bidirectional influence, first introduced by Bell (1974), was a reaction to the view of the infant as the passive recipient of the adult's attentions and behaviors and suggested that the infant's behavior also had a large influence on the adult. This view of family interaction has come to dominate most thinking in the field of developmental psychology. Temperament is important because it affects the child's behavior, which then has a particular impact on the parent. An infant who is intensely negative will elicit different behaviors than the infant who is mildly positive. The toddler who withdraws from new things will elicit different behaviors than the toddler who approaches them. The child who is extremely active will elicit different behaviors than the child who is more sedentary. In this way, a child's temperament has a profound effect on the parent. The model of bidirectional influence also encompasses the effect of the parent's behavior on the child. Here, too, temperament can have a large impact. A particular parent's style of play may be perceived as boring by an infant with a high sensory threshold, but may be overstimulating to an infant with a low threshold. An offer to play tag may be seen as rewarding to the active child but aversive to the sedentary child. Seen in this context, "goodness-of-fit" occurs when the bidirectional influences

between child and parent are perceived as positive. A "poor fit" occurs when negative perceptions and behaviors are the outcome of interactions.

The different patterns of extreme temperament tend to elicit certain types of perceptions and behaviors from adults (Pullis, 1989). The "sensitive" child constantly demands attention from the adult by asking for help, reassurance, and comfort for frequent fear and various complaints. This behavior often elicits attentive, and perhaps overprotective, concern which may turn to exasperation when the child is seen as too demanding. The adult may feel that the child is being willful, stubborn, and making unreasonable demands. A parent may also feel incompetent because they are unable to satisfy the child. In the worst cases, physical and emotional abuse may result.

The "active" child is into everything and may easily disintegrate into "wild" behavior. This child does not request adult attention, but the adult will have to give attention to prevent harm to the child or property. The parent may feel that the child is totally out of control and undisciplinable. This behavior often elicits strict discipline and punishment. If the parent loses control, the punishment may become abusive.

The "easy-going" child plays alone happily for extended periods of time, isn't bothered by much, and readily adapts to any new situations. A child like this may elicit a feeling of parental competence. However, this child seems so happy and self-reliant, that he or she is easy to ignore when parents are busy or stressed.

Parent education about temperament.

Most applications of temperament to actual family situations have come from clinical psychologists, dealing with identified patients (Turecki,1989; Thomas & Chess, 1977). However, by the time families seek clinical help, the situation is usually quite serious. A primary prevention model suggests that support and information given to parents before problems arise may be much more effective than trying to change established dysfunctional patterns of interaction (Forehand, et. al, 1984). Several programs have attempted to provide this sort of intervention. Cameron and Rice(1986) assessed the temperament of infants at four months and gave parents information about their infant's temperament, predictions about problems the

parents were likely to have, and suggestions about how to deal with those problems. Information, whether in written or personal form, was most appreciated by parents of difficult children. Follow-ups four, eight, and twelve months later indicated the researchers' predictions of problems were accurate soon afterwards, but not one year later. While this lack of predictive accuracy could be seen as a weakness in the screening process (Bates, 1989) , it could also be attributed to the beneficial effects of giving relevent temperament information to parents. That is, giving parents information about dealing with their child's difficult temperament at four months might allow them to improve the goodness-of-fit between child and family so that one year later the children are not having significant problems. Bates (1989) describes another program in Oregon that uses primary prevention techniques to deal with behavior problems related to temperament.

Summary

In summary, temperament is an important factor in parent-child interactions. Children with extreme patterns of temperament are more of a challenge to parent. Part of this challenge is because common knowledge and practice of parenting is based on research on the average child, but "difficult" and "easy" children often respond better to other methods. The most effective approach to this problem would be primary prevention, a program that provides useful information to parents of temperamentally challenging children before significant behavior and emotional problems develop. The IUSB Parent Project was designed to meet the basic knowledge and support needs of all parents while offering individualized information for the parents of challenging children.

Methodology

Subjects.

The Parent Project recruited first-time parents from a wide range of backgrounds by visiting prenatal classes, posting flyers, and word-of-mouth. A total of 20 families were recruited. All were expecting their first child, and both parents were over the age of 18. No families had any serious risk factors. One family was dropped from the study when they moved away, and another dropped out when her baby was born prematurely.

Procedure.

Using the basic format and lesson plans of the Missouri Parents As Teachers program, families are visited monthly by trained parent educators who provide information on child development. In addition, each visit begins with a quick assessment of the child's current developmental progress and the parent's perception of the child's temperament. Parents are encouraged to view their child as a unique individual and to consider themselves as the expert on their own child.

When a child is rated by parents as extreme on a temperamental trait for two consecutive months, parent educators respond by giving them a "temperament information sheet" that gives more information about parenting a child with that particular extreme trait. These sheets describe the behaviors associated with a given trait and suggest ways to deal with those behaviors in a beneficial manner. Each sheet also mentions ways to help the child and family achieve a "good fit' and some special strengths of a child with that trait.

Children who fit a particular pattern ("energetic," "sensitive," and "easy-going") are described to the parents in those terms, and are also described as "challenging." Parents are reassured that, although a "challenging" child is more difficult to parent competently, those same extreme traits make the child a potentially "remarkable" adult.

Families will participate until the child is three years old, at which time the children will be evaluated in terms of their social and cognitive development. We will also assess the parents' satisfaction with and confidence in their parenting role. The children's performance will be compared to a control group of three year olds whose parents have not participated in a parent education program and to the scores of the children in the original Missouri study.

Hypotheses.

I hypothesize that the children in this study will outperform the control group in both cognitive and social development, just as the original Missouri pilot study participants did. I predict that Parent Project children will outperform the Missouri children on social development due to the emphasis on individual

temperament. I expect Parent Project parent satisfaction ratings to be higher than Missouri's for the same reason.

Current status

We now have 18 families enrolled in our study. The babies, all healthy, range in age from four months to eight months. Except for the two families who dropped out early, family involvement has been high. Early temperament ratings indicate a normal distribution of temperament.

Case studies

This study is still in its early stages, but we have already had some interesting experiences in dealing with temperament. In this section, I will describe the cases of three infants from the Parent Project who exhibited extreme temperamental patterns. Identifying information has been changed to protect confidentiality.

"Sensitive"

Sarah shows the "sensitive" pattern of temperament. As with many "sensitive" babies, she had severe infant colic and cried inconsolably for long periods for several weeks (Taubman, 1990). At one point, her parent educator visited to find that the mother had not slept for 36 hours because the baby had been crying non-stop. The educator rocked the bab, while she and the mother brainstormed for causes and coping strategies. Even after the colic episodes subsided the educator noted that she never saw this infant smile. The child wore a very serious expression, fussed frequently, and was generally wary of strangers, classic traits of the sensitive child. Sarah also has sleep disturbances, waking several times each night in a fearful, distressed state. Attempts to let her "cry it out" led to frantic and hysterical crying. Weissbluth (1981, 1984) suggests that many early sleep disturbances begin with parental reactions to extreme temperament that are appropriate to infants but are continued long past the child's need for them. At this point, Sarah's parents are still continuing to comfort her at each incident. When she is a little older, the parents will be encouraged to change their nighttime habits. Many parents, when faced with such a demanding infant, would be unsure about their parenting abilities and frustrated with the child. However, the parent educator

frequently reassured the parents that the baby's behavior was due to the temperament, not poor parenting. She also gave information about two temperament-related issues, colic and sleep disturbances. The parents are satisfied with their parenting role, so much so that they are our first family to get pregnant again (intentionally)!

Active

Andy is an extremely active baby. He sleeps very little, and when he is awake his favorite activity is "bouncing," being bounced by his parents. Andy's parents are often exhausted trying to keep up with him. At this point, a major goal of the parent educator is to get his house well child-proofed--when a child this active begins to crawl, accidents are very likely (Matheney, 1986, 1987). Dangerous objects must be removed, but also objects that may not be dangerous, but are very precious to his parents. A child who destroys valuable objects is at high risk for emotional or physical abuse, even though the destruction is unintentional. Andy also had serious sleep problems--in the first months he was waking every hour during the night. His waking was not due to fear or distress, like Sarah's. His active temperament and positive mood led him to wake up and look for "fun," and his attentive parents were reinforcing this behavior by going to him immediately. The educator encouraged them to teach him that daytime was for playing, but night was not, and his sleep behavior rapidly improved. His educator has pointed out to his parents that all of this activity will be an advantage when he is an adult. The father is thrilled with this prediction, and has already purchased quite a bit of sports equipment for Andy. These parents are quite willing to accomodate Andy's demanding activity level because they like the idea of an active adult.

"Easy-going"

Our most dramatic case to date has involved a very easy-going infant who was almost a victim of inadvertent child neglect. Ethan was a very easy-going baby from the start. He slept soundly for hours and when awake was content to sit in his infant seat. He rarely cried. At the one-month visit, the mother remarked that Ethan was not gaining much weight. By the second month, Ethan was still not gaining weight, although the doctor could find no physical reasons. The educator also noticed that Ethan seemed very passive and his arm muscles were quite weak. A discussion with the mother revealed that Ethan was content to spend most of his waking hours sitting in his infant seat as his mother worked.

The educator described Ethan to his parents as a "sweet, easy-going little guy" who was so easy-going that he didn't even ask for things when he needed them. The parents were urged to offer Ethan food more frequently, although not to force him to eat, explaining that he might not be fussing when he was hungry like the average baby does. As we expected, Ethan was often hungry although he didn't cry, and he soon began to put on weight. We suspected that his poor motor development was due to the hours spent in the infant seat. Not only was Ethan content to sit in the seat, but the family has an extremely large, friendly dog and they were afraid to put the baby down. They also seemed to mistake Ethan's low-key emotions for lack of interest in parent-baby interactions. First, the educator convinced the parents to put the dog outside for exercise more frequently and to put Ethan on the floor during that time so that he could practice holding up his head and torso. Second, the educator explained that although Ethan was content without parental attention, that didn't mean he wouldn't appreciate it and benefit from it. The educator showed the parents some simple baby games, and showed how Ethan's low-key emotional responses could communicate pleasure and excitement, or withdrawal from overstimulation.

Now, at eight months, Ethan is doing very well. His weight is good (the educator described him as in the "butterball state"), he is alert and curious, and his motor development is on-target for his age. I thnk that changing his parents' perceptions of him from self-sufficient to easy-going helped them recognize his needs and provide for them. When they provided for his needs, he responded enthusiastically by eating more and playing with them. This in turn encouraged them to meet his needs.

REFERENCES

Bates, J.E. (1989). Applications of temperament concepts. In Kohnstamm, G.A., Bates, J.E., & Rothbart, M.K. (Eds.), *Temperament in childhood* (pp. 321-355). New York: Wiley.

Bell, R.Q. (1974). Contributions of human infants to caregiving and social interaction. In Lewis, M. & Rosenblum, L.A. (Eds.), *The effects of the infant on its caregiver* (pp. 1-21). New York: Wiley.

Burgess, R.L., & Conger, R. (1978). Family interactions in abusive, neglectful, and normal families. *Child Development, 49*, 1163-1173.

Buss, A.H. & Plomin, R. (1984). *Temperament: Early developing personality traits.* Hillsdale, N.J.: Erlbaum.

Cameron, J.R. (1977) Parental treatment, children's temperament, and the risk of childhood behavioral problems: 1. Relationships between parental characteristics and changes in chilren's temperament over time. *American Journal of Orthopsychiatry, 47* (4), 568-576.,

Cameron, J.R. & Rice, D. (1986). Developming anticipatory guidance programs based on early assessment of infant temperament: Two tests of a prevention model. *Journal of Pediatric Psychology, 81*(4), 823-828.

Carey, W.B. (1974). Night waking and temperament in infancy. *Journal of Pediatrics, 7*, pp. 331-337.

Carey, W.B. (1989). Clinical use of temperament data in pediatrics. In Carey, W.B. & McDevitt, S. *Clinical and educational applications of temperament research* (pp. 127-139). Berwyn,PA: Swets North America.

Carey, W.B. & McDevitt, S. (1989). *Clinical and educational applications of temperament research.* Berwyn,PA: Swets North America.

deVries, M.W. (1984). Temperament and infant mortality among the Masai of East Africa. *American Journal of Psychiatry 141*, 1189-1194.

deVries, M.W. (1989). Difficult temperament: A universal and culturally embedded concept. In Carey, W.B. & McDevitt, S., *Clinical and educational applications of temperament research* (pp. 81-85). Berwyn,PA: Swets North America.

Emde, R.M., Gaensbauer, T.J., & Harmon, R.J. (1976). Emotion expression in infancy. *Psychological Issues Monographs*, No. 37.

Forehand, R.L., Walley, P.B., & Furey, W.M. (1984). Prevention in the home. In Roberts, M.C. & Peterson, L., Eds. *Prevention of problems in childhood.* New York, Wiley.

Goldsmith, H.H., Buss, A.H., Plomin, R., Rothbart, M.J., Thomas, A., Chess, S., Hinde, R.A., & McCall, R.B. (1987). Roundtable: What is temperament? Four approaches. *Child Development, 58*, 505-529.

Matheny, A.P. (1986). Injuries among toddlers: Contributions from child, mother, and family. *Journal of Pediatric Psychology, 11*, 163-176.

Matheny, A.P. (1987). Psychological characteristics of children in accidents. *Journal of Social Issues, 43*, 45-60.

Pfannenstiel, J.C. & Seltzer, D.A. (1985). *Evaluation Report: New Parents As Teachers Project.* Jefferson City, MO: Missouri Department of Elementary and Secondary Education.

Pullis, M. (1989). Goodness of fit in classroom relationships. In Carey, W.B. & McDevitt, S. , *Clinical and educational applications of temperament research* (pp. 117-120). Berwyn,PA: Swets North America.

Resnick, M.B., Reiss, J., Eyler, F.D., & Schauble, P. (1988) Children's developmental services: A multidisciplinary prram of psychological and educational services for neonatal intensive care. *Journal of Counseling and Development, 66*, 279-282.

Roberts, M.C. & Peterson, L., Eds. (1984). *Prevention of problems in childhood.* New York, Wiley.

Taubman, B. (1990). *Curing infant colic.* New York: Bantam Books.

Thomas, A. & Chess, S. (1977). *Temperament and development.* New York: Brunner/Mazel.

Tronick, E.Z. & Field, T. (1986). *Maternal depression and infant disturbance: New directions for child development* (Vol. 34). London: Jossey-Bass.

Turecki, S. (1989). *The difficult child.* New York: Bantam.

Weissbluth, M. (1981). Sleep duration and infant temperament. *Journal of Pediatrics, 99*, pp. 817-819.

Weissbluth, M. (1984). *Crybabies: What to do when baby won't stop crying.* New York: Berkley Books.

White, B.L. (1985). *The first three years.* Englewood Cliffs, N.J.: Prentice-Hall.

White, B.L. (1988). *Educating the infant and toddler.* Lexington, MA: Lexington Books.

Zigler, E. & Black, K.B. (1989). America's family support movement: Strengths and limitations. *American Journal of Orthopsychiatry, 59* (1), 6-19.

Appendix A
Temperamental traits

Activity level

The child with a very **high level** of activity is very active, restless, into things; "ran before he walked," easily overstimulated; gets wild, impulsive, loses control, can be aggressive; hates to be confined.

The child with a very **low level** of activity is very inactive, quiet, often slow-moving; stays in one place for long periods of time; enjoys inactive pursuits like television or artwork.

Adaptability

The child with **very high** adaptability to change is not bothered by changes in schedule or environment.

The child with **very low** adaptability has trouble making changes in activities, in situations, and in schedules. Changes may be met with resistance, frustration, and tantrums.

Distractibility

The child with a **very high** level of distractibility has trouble concentrating and paying attention; doesn't "listen"; daydreams, forgets instructions.

The child with a **very low** level of distractibility has no trouble concentrating on a particular task. This child may concentrate so completely that other stimulation is completely ignored.

Intensity

The child with a **very high** level of intensity expresses emotions (both positive and negative) in a very loud and forceful manner. This child is not merely happy, but thrilled; not just sad, but devastated. As an infant, the high intensity baby cries very loudly, but also laughs loudly.

The child with a **very low** level of intensity expresses emotions (both positive and negative) in a very quiet, low-key manner.

Mood

The child with a **negative mood** is usually in a serious or unhappy mood, often resulting in whiny, cranky behavior. This mood is not necessarily due to outside effects. It is simply this child's general reaction to the world.

The child with a **positive mood** has a naturally sunny, happy disposition.

Persistence

The child with a **very high** level of negative persistence can be described as stubborn and strong-willed, with very strong preferences. This child won't give up on something, even when getting no reinforcement for it.

The child with a **very low** level of persistence can be described as very agreeable and flexible. When this child is faced with a "roadblock," he or she will usually give up the activity rather than stubbornly try to continue.

Approach to newness

The child who **approaches** newness will tend to be intrigued by anything new, particularly new objects or new experiences.

The child who **withdraws** from newness tends to dislike new things, situations, people, or experiences simply because they are new.

Regularity

The child with a **very high** level of regularity has a very strong internal clock. This baby may have fallen into a regular schedule within weeks of getting home from the hospital. When older, this child will want to eat and sleep at the same time every day.

The child with a **very low** level of regularity does not have much of an internal clock. As an infant, this baby may be very difficult to get on a schedule for eating or sleeping. When older, the child may be hungry and sleepy at different times each day. Moods may be very changeable, with good days and bad days for no apparent reason.

Sensory threshold

The child with a **high** sensory threshold does not notice sensory stimulation until it reaches a high level. Low level noises, lights, touches, and sensations will not be noticed or, if noticed, will not bother the child.

The child with a **low** sensory threshold is very sensitive to all sorts of physical stimuli. Almost any small sensation can "cross" their threshold. They may be sensitive to (and complain about) sensations that you don't even notice. Some children may be sensitive across all the senses, while others may be sensitive in only one modality (for example, sound or touch).